DOCUMENT RESUME

ED 196 165 EA 013 238

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TITLE The Use of Census Data in Several Areas of Educational Planning.
PUB DATE Oct 80
NOTE 23p.; Paper presented at the Annual Meeting of the Association of School Business Officials (66th, New Orleans, LA, October 26-30, 1980).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Ancillary School Services; *Census Figures; *Data Bases; Demography; *Educational Planning; Elementary Secondary Education; *Needs Assessment; Older Adults; *Research Utilization; Resource Allocation

ABSTRACT

Information gathered from the Bureau of the Census and a review of the literature available indicate that few school districts make use of the comprehensive data collected by the decennial federal census or the data collected and updated annually by the individual state departments of education. Educational planners should have a complete understanding of the characteristics of their school districts and the population they service to make educationally effective and fiscally sound judgments in long- and short-range planning. The various categories of information are summarized and outlines of several alternatives for implementation in district planning are suggested. (Author)

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The Use of Census Data in Several Areas of Educational Planning

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EA 013 238

Presented at ASBO convention, Oct. 1980

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INTRODUCTION

The sophisticated data collecting and processing techniques available today have provided government, business, and industry with a wealth of information concerning the population of this country. One mechanism for collection of this information is the decennial U.S. Census. While census information is readily available to planners in all agencies, few in education take full advantage of it. Present economic conditions in this country demand that educators, particularly those at the district level, practice sound, responsible planning with taxpayer money in all aspects of education from facilities and operations to program and special services. We are being challenged and held accountable for how we spend tax money and must be prepared to support our decisions with sound, empirical data. Now that the population boom has quieted and inflation has increased we must combine short term, planning with quality planning, long term. In addition, the scope and responsibilities of the school have expanded, requiring the school budget to be used to educate children in areas formerly covered by other institutions in the society, particularly the church and the family.

The United States Census Bureau publishes volumes of printed census data for each state. Within the state volume is a breakdown of information for the entire state, for counties, county subdivisions, incorporated areas, and congressional districts and standard metropolitan statistical areas (SMSA). Information includes number and characteristics of housing units, population size, age, sex, race, marital status, and household relationships. Table I presents a complete list of items asked of one hundred percent of the population as well as those asked of a sampling of

TABLE 1

Subject Items Included in the 1980 Census

100-Percent Items

Population	Housing
Household relationship	Number of units at address
Sex	Access to unit
Race	Complete plumbing facilities
Age	Number of rooms
Marital status	Tenure (whether unit is owned or rented)
Spanish/Hispanic origin or descent	Condominium identification
	Value of home (owner-occupied units and condominiums)
	Contract rent (renter-occupied units)
	Vacant for rent, for sale, etc. and duration of vacancy

Sample Items*

Population	Housing
School enrollment	Type of unit and units in structure
Educational attainment	Stories in building and presence of elevator
State or foreign country of birth	Year built
Citizenship and year of immigration	Year moved into this house
Current language and English proficiency	Acreage and crop sales
Ancestry	Source of water
Place of residence five years ago	Sewage disposal
Activity five years ago	Heating equipment
Veteran status and period of service	Fuels used for house heating, water heating, and cooking
Presence of disability or handicap	Costs of utilities and fuels
Children ever born	Complete kitchen facilities
Marital history	Number of bedrooms
Employment status last week	Number of bathrooms
Hours worked last week	Telephone
Place of work	Air conditioning
Travel time to work	Number of automobiles
Means of transportation to work	Number of light trucks and vans
Number of persons in carpool	Homeowner shelter costs for mortage, real estate taxes, and hazard insurance
Year last worked	
Industry	
Occupation	
Type of employment	
Number of weeks worked in 1979	
Usual hours worked per week in 1979	
Number of weeks looking for work in 1979	
Amount of income in 1979 by source	

*For most areas of the country in 1980, one out of every six housing units or households will receive the sample form. Areas estimated to contain 2,500 or fewer persons in 1980 will have a 3 out of every 6 sampling rate, which is required in order to obtain reliable statistics needed for participation in certain Federal programs.

the population. A more detailed questionnaire is given to a sampling of the population (one out of every six households). These questionnaires reveal facts about school enrollment, educational levels, fertility, employment status, income, and other such categories. Tables containing this information are included in the state volumes.

For smaller areas (census tracts, enumeration districts, and blocks) the information is tabulated and bound into volumes for the individual SMSA's. The SMSA is divided into government divisions such as towns and cities. These volumes give the picture of a school district based on the census tracts found within the district. For example, if a given school district had a senior citizen population of 3,000, one could locate where the majority of these people were concentrated by looking at the totals within each census tract in the school district.

The printed volumes mentioned above are readily available at "depository" libraries throughout the country (college and university libraries, large municipal libraries, etc.). However, if such a library is not nearby, the information may be obtained by writing or calling the State Department of Commerce. The U.S. Bureau of the Census is committed to improving and increasing public access to the statistical products available and to aiding users in interpreting and utilizing the information. State Commerce officials will even provide day to day assistance in response to requests.

In the past, the reason given by school district planners for not employing census data more extensively was that census tract boundaries and school district boundaries did not coincide, thus

making much of the information impractical. However, the U.S. Office of Education, in cooperation with state agencies and the U.S. Census Bureau, has undertaken a remapping project making census information available throughout the country on a school district basis for most districts of over 300 students. School district maps were superimposed on census tract maps, and mathematical estimating techniques were applied where boundaries were not coterminous to produce census information for areas within school district boundaries. The volumes containing census information by school district are available through individual State Education Agencies.

Census data is used extensively at the state and national levels in decision making which effects individual school districts directly and indirectly. State legislatures use demographic information in allocating funds for special educational projects, state aid, and aid to deprived areas. When educators evaluate proposals for federal and state educational grants, the characteristics of the applicant population are studied carefully in assessing need and determining whether or not individual proposals will be accepted. Agencies of the federal government use census data as criteria for the allocation of funds for various educationally related programs, including vocational education, emergency school aid, Headstart programs, bilingual education programs, and public library construction and services among others.

GENERAL POPULATION DATA

Particular school districts can use census data in determining the true composition and the needs of the district in order to

properly serve their clients. The most obvious use of population information would be in determining short and long range enrollment projections for various grade levels. Identifying where various age groups are concentrated would aid district planners in determining sites for new buildings and facilities. Many would say this is the least of our concerns in this day of declining enrollment. However, population figures are important in the management of decline as well as growth. A thorough understanding of the composition of the district population will aid in determining school closings, redistricting and staff reorganizing. This information would help planners to develop a rational, proactive program for coping with decline within their districts rather than a short range, haphazard, reactive practice.

Even if a particular district's population is remaining relatively stable in terms of total enrollment, there are often migration trends within the district which are revealed by census data (Johnson, 1962). As various groups within a district shift location it may be necessary to shift programs within the district. A new housing area, for example, might attract young families from the older section of the district thus warranting a decrease in the faculty of the older elementary school and an increase in the newer elementary school. These kinds of decisions can be anticipated when planners have the statistical data available to them and the plans implemented can be less costly and less confusing if they have been anticipated far enough in advance.

Economic hard times have, in many cases, been more devastating to nonpublic schools than to public schools. As education becomes expensive for all, many nonpublic schools are being forced to

close their doors. This has serious implications for the neighboring public schools. Districts which have several nonpublic schools within their boundaries should have a good idea of just what the enrollments are in these schools. Since the closing of a nonpublic school very often means an increase in the population of the nearby public schools, district planners should be prepared to accommodate this increase (Cohen, 1971). An accurate knowledge of the numbers involved allows planners to look ahead and be aware of the possible future problem.

Despite the total enrollment declines faced by some districts, there have been increases in the preprimary age group (Hurd, 1970). Since much emphasis has been put on and federal money invested in early childhood education, it is important for district planners to examine their own client population to determine if there is a need for more extensive programs for preschool education (Munse, 1972). The demographic information would also indicate whether or not the district might be eligible for state or federal aid to early education programs.

Census tables for the general population also indicate family relationships and heads of households for 100% of the population. Knowledge of this information can be useful in determining sites for child care facilities in conjunction with preschool education programs. For example, there may be a large housing unit which has many residents who are female heads of households with young children. This could indicate to the educational planner a need for child care as well as early childhood education. By taking the time to identify such a need and perhaps seeking governmental assistance to meet the need, the

school planners would be truly serving their client population. Attempts like this to serve the community are valuable elements in a district's ongoing public relations program. It is programs like this which might persuade the taxpayer to vote "yes" rather than "no" to a school budget.

RACE AND ETHNIC INFORMATION

The racial composition of a district is reflected in the 100% population information included in the census data arranged by school district. For more detailed breakdown by ethnic origin and languages spoken, it would be necessary to study the census publications arranged by SMSA's. A thorough knowledge of the racial and ethnic composition of a school district is valuable for planning many educational and school-community projects.

As mentioned earlier, even as a district's total enrollment may remain stationary, there are often migration trends within the population. It is important, particularly in large urban school districts, to study the racial composition of the district and the various schools within the district periodically in light of school integration policies. Careful examination may reveal that the racially integrated and balanced school district of five years ago has several segregated schools today. This examination will enable planners to answer questions related to how the ethnic imbalance may effect motivation and learning, whether or not there are any "forgotten" schools in the district, and it will aid them in establishing policies and taking actions to best reverse the imbalance which exists (Johnson, 1962).

the population.

Another area receiving much attention and financial support from various governmental agencies is the area of bilingual education. Qualifying school districts can take advantage of educational aid available for implementing bilingual education programs. Census data indicates the numbers of non-English speaking people, people of Hispanic background, and numbers of households in which English is not the language spoken. This information will enable education planners to apply for grant money and will help them to determine the best locations within the district for such programs (Wexler, 1979).

Along with racial and language information, the census tabulations indicate the ethnic backgrounds of the population. This information may effect decisions about curriculum development. There has been an increase in ethnic awareness throughout our society recently, and many schools are integrating ethnic studies into their school curricula. For example, many urban schools with large populations of blacks are including courses in black studies. A district with a large Italian population may want to include aspects of the Italian tradition in their course offerings by teaching elements of music through a course on Italian opera or teaching the elements of literature through a course on Italian literature. Programs of this sort have the initial effect of enhancing the academic program and often have the added effect of improving school-community ties and enlisting more support from the community.

SOCIO-ECONOMIC INDICATORS

Census data includes a detailed description of the adult population within the district as well as the school age

population. Facts such as employment status, salaries earned, educational attainment, type of employment, and citizenship are useful in understanding the needs of the client community and taking actions necessary to meet these needs.

A careful study of the educational attainment of the district population might suggest an expansion of the present High School Equivalency Program being offered. Perhaps the educational levels of enough people are low enough to warrant the application for a federal grant to establish an Adult Basic Skills Program. Current language spoken and English proficiency may indicate the need for courses in English as a Second Language to become part of the district's continuing education evening program. All of these are part of the total district program and are the concern and responsibility of the educational planners.

Employment information, upon first consideration, may not seem to be within the scope of our discussion, but it has important implications for education planning. Initially, income levels along with information on housing give an indication of the standard of living and the levels of poverty of the district population (Williams, 1960) Research has shown that poverty and the conditions accompanying it have a direct bearing on learning, motivation, and success in school (Levine, 1974). Schools have had to make special arrangements to help those students who are victims of poverty, particularly in large urban areas where conditions are more severe. Schools must offer free lunch programs and even breakfast programs for those in need. In addition, there is often a course in nutritional education to teach youngsters who can in turn teach their parents how to stay healthy. A district with a

large number of people in need might use excess school building space in conjunction with the Social Services Agency to provide neighborhood health services or family counseling. Such shared facilities arrangements are becoming very practical as expenses of agencies increase and as school populations decline, thus freeing space. (Mylecraine, 1968). Problems of the urban poor also might require that a school curriculum address the problems of drug and alcohol abuse. This hardly seems to be an educational concern, but as stated above as society becomes more complex, the scope of the schools has had to expand to include many societal concerns within its traditional educational concerns. A careful examination of census data will give planners a good idea of how best to cope with the societal problems within their own limited community.

The census also includes specific questions which reveal not only salary, but also type of job held, place of work, employment status last week, hours worked last week, number of weeks worked in the last year, and number of weeks spent looking for work last year. This data is very important in planning for occupational and vocational education for both high school students and for adults (Emery, 1973). This is another area which has increasingly become the responsibility of the educational institution. With the expansion of B.O.C.E.S. centers and the recent emphasis on education for the handicapped, occupational education has become a top priority. Many districts find that money previously allocated to enhancing the academic curriculum is now being used to expand their vocational programs. Census data allows the educational planner to determine types of employment

most available in his district and to structure the high school vocational program accordingly. For example, if there is a large manufacturer of electrical appliances in the district offering good employment prospects for high school graduates and employing many from the community, the district might want to expand the electrical studies within their vocational program. This would give the students the advantage of being well prepared to compete for the jobs which are available, and it would establish a good relationship between the manufacturer and the school because the employer would be confident that those he hires from said high school will be well prepared to function on the job.

A study of the types of jobs held by the people in a district may indicate that a large number of adults in the community are unskilled and consequently may not hold permanent, reliable jobs. There is a need to not only train high school students but also those whoare not in school. A district could begin a plan of using the school's vocational education facilities in conjunction with the federal or state programs for vocational training. This type of arrangement could benefit both agencies. The government program would not have to invest money in equipment and facilities because they would be using the existing district facilities. Since they would be saving money in this area, they might put funding into expanding the existing facility or personnel, thus benefiting the district.

Census information would allow the schools to have a more accurate and detailed picture of the occupational status and needs of the entire community. Many criticize educators today for teaching too many "useless" things in school and not enough

practical, survival skills. In many districts this may be the case. It is incumbent on educators to determine what needs to be taught to their particular constituency, and how best to do this. By examining the employment information revealed in the census, educators might discover that the programs and curriculum offered in their schools are not truly equipping their students to function well and succeed in the work world they will enter. The society as a whole seems to be much more specialized and technical than in the past. Fewer people are entering college for a "liberal" education. Generalists in our society often find employment more and more difficult to find. The schools must understand the communities they serve and plan an educational program for the particular community.

This same analysis can apply to the planning of adult/continuing education programs offered by school districts. A careful look at community work force might indicate the need for skills training, employment counselling, or very basic courses on how to write a job application letter, how to write a resume, or how to conduct oneself in an interview. Census data can give an indication to what extent such an adult education program would be needed.

CENSUS DATA AND THE SCHOOL BUDGET

An examination of the employment status and income levels available in census tables can be very useful to the school business official as he prepares the district budget. Census data will indicate the economic well-being of the community and its ability to support public education. It will also indicate areas where perhaps more "campaigning" for the budget must be

done. From the overall employment picture planners get an idea of how extravagant they can be with their budget and the prospects of getting the budget passed. This information can be useful in anticipating possible contingency budgets and in allocating the funds within the budget. As more and more budgets are being defeated by taxpayers throughout the country, it is vital to attempt to anticipate and prepare for possible budget crises and to campaign vigorously and continuously throughout the community to enlist supporters for the budget.

SENIOR CITIZEN POPULATION

In this country, the senior citizen population, those over sixty-five years old, has grown in recent years and has become worthy of the educational planner's attention. The survival and growth of education in our society rests in the support of the taxpayers. Those who have young children in school have a vested interest in their schools and tend to be more supportive of the efforts of the schools. However, as children grow and leave the schools, parents forget that their school tax dollars are benefiting society. Many feel that since they no longer have children in school, they are not gaining anything from the money they are paying in school taxes. Because they see no direct advantage to themselves, they begin to begrudge paying school taxes and vote "no" on school budget issues. Depending on the size of the senior citizen population within a district, this can have serious implications. Census data provides planners with information about the size of its senior citizen population and the areas of concentration within the district.

Once the educational planner has described his senior citizen population and has located it, there are several plans he can implement to serve them and to integrate them into school life, thereby enlisting their overall support for education.

Earlier in this paper, the idea of sharing school facilities with other community and governmental agencies was examined. It is certainly applicable to senior citizen groups. They are becoming increasingly organized and active. Since schools are usually centrally located, they are convenient places in which to hold social activities either after school hours and on weekends, or as space is available, during the school day. Square-dancing can be held in the gym; a literary club in the high school library; a crafts group in the home economics suite; a recreational swimming hour in the high school pool. These activities would not require extensive planning or expenses on the part of the school district and would make senior citizens feel that they were using the facilities that their tax dollars support.

Senior citizens could also be given more consideration in planning the adult education program. Courses designed to interest them particularly could be offered at special rates, and extra effort could be taken to publicize them in retirement housing areas in an attempt to recruit more participants. This would again bring people into the schools to see what's available to serve them.

A little more organizational effort on the part of the educational planner in conjunction with senior citizen organizers could initiate plans which would enhance school programs and

prove very satisfying to senior citizens. Volunteers could be enlisted to help with the preschool programs throughout the district. This would be economical for the school district, would be enjoyable and gratifying for the senior citizen volunteers, and would provide the young children with the grandparents they might be missing. Research and pilot programs of this kind have proven to be very successful and beneficial for all involved.

Very often senior citizens have valuable skills and good educational backgrounds which the school planners can tap. Perhaps senior citizens would enjoy volunteering to tutor students in the evening high school equivalency program or in the high school resource room. Former carpenters and woodworkers could help the high school shop teacher and pass on much information from past experience. Likewise, women could assist the home economics teacher in cooking classes, sewing classes, and child care courses.

It is only through the census data that school planners can determine just how large their senior citizen population is and where in the district it is concentrated. This information will enable school planners to implement programs which will integrate senior citizens into the school community, thereby allowing the school to affect their lives more directly. A major effort to make senior citizens see the school as an institution which serves them and with which they have an affiliation will help enlist their support for education. This effort should be an integral part of an on-going, year round school district public relations project. It is largely senior citizens who are on fixed incomes and have no children in school who are defeating school budgets throughout the country. It is vital that we make a concentrated effort to change this situation if education is to survive, much less thrive.

CENSUS DATA AND HIGHER EDUCATION

While this article has dealt primarily with census data and its importance to public school planners, the same analysis can be applied to colleges and universities, particularly local two year colleges. Institutions of higher education are competing fiercely to recruit students in a time when many potential college students are choosing not to continue their education. Census data can give a detailed description of the population in as large a surrounding area as the school is interested in. By examining the ages, income levels, employment status, and education levels of the community the college can structure curriculum and technical programs which will meet the needs of the community (Landini, 1972). Adult students returning to college are a major source of students. Census data will help recruiters identify and locate these potential adult students (Landini, 1972). An analysis of the economic well-being of the community can aid in determining the ability the population has to finance higher education for their children. This will help financial aid offices to develop aid plans tailored to the needs of the immediate community.

Community analysis through census information will assist community relations offices to plan programs and services specially designed to meet particular community needs and to bring the community on campus. Programs like these will enable citizens to see the area college as an integral part of the community and not an isolated unit of its own, and it will certainly help the recruitment effort.

CENSUS DATA AS PART OF THE TOTAL INFORMATION SYSTEM

The 1980 Census will provide the most comprehensive source of population information to date. As it has been stated, this information is readily available and can be vital to many areas of educational planning. Granted, it will take some time and effort to extrapolate the facts pertinent to a particular district. However, once the initial effort has been made, the information collected should be easily accessible for use in everyday planning. Many districts are making extensive use of computers for information storage and easy retrieval. This collection of census details can be kept on line in the computer for ready use and would become a significant element in the district's information system (Hurnard, 1972).

Since the U.S. Census is taken only every ten years, the information collected loses its validity after about five years. Most school districts take an annual census in compliance with the State Education Agencies' policy of collecting certain basic educational data throughout the state. The U.S. Census information can serve as a solid, detailed base which can be updated and supplemented annually by the individual school district's census. The integration of the two census data pools will provide the district planners with an elaborate, accurate description of the school district they serve. With the use of the district's computer system the information can be convenient and easy to use in day to day planning as well as long range planning.

CONCLUSION

As economic conditions make the financial security of education more precarious, educational planners must use all the information and tools available to them in order to anticipate problems and allocate funds prudently and judiciously. As we have seen, the U.S. Census Data is a wealth of information which can be used in all aspects of educational planning in various levels of education. Census data gives planners a detailed picture of the total condition of the population being examined. Planners can use this information in curriculum decisions, special service offerings, program development, and public relations projects.

The prudent, creative use of census data has many implications for the future of education. It can aid planners in assessing the needs of the client population, and it can identify special interest groups who should be served by the educational institution and others whose support for education can be sought and cultivated.

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